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REMARKS

Claims 2, 11, 12, and 14-18 have been amended to correct informalities as suggested by the examiner to satisfy the objections.

Claims 1 and 10 have been amended to further divide steps (d) and (e) into steps (d), (e), (f), and (g) to ensure that all the claim limitations are given due consideration.

Claims 1-18 are pending in the application.

By way of this response, Applicant has made a diligent effort to place the claims in condition for allowance. However, should there remain any outstanding issues that require adverse action, it is respectfully requested that the examiner telephone Timothy R. Croll at (408)433-7625 so that such issues may be resolved as expeditiously as possible.

Response to the rejection under 35 U.S.C. § 103

Claims 1-3, 5-12, and 14-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Huang, et al., U.S. Patent Application No. 2004/0015803 (*Huang*) in view of Nadeau-Dostie et al., U.S. Patent No. 6,457,161 (*Nadeau*). Applicant respectfully traverses the rejection as follows.

Regarding Claims 1 and 10, section 5 of the rejection alleges that in paragraph [0024], *Huang* teaches the claimed step (c) of selecting a cell belonging to a common signal domain that is not included in a corresponding list of cells for a common signal domain. The rejection concludes that partitioning scan cells into subgroups based on source clock roots in paragraph [0024] is equivalent to selecting a cell belonging to a common signal domain that is not included in a corresponding list of cells for a common signal domain. However, as explained in the specification on page 6, line 19 to page 7, line 23, there are several different ways that scan cells may be partitioned into subgroups based on source clock roots. As explained further in the specification on page 8,

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lines 6-25, previous methods of grouping scan cells are costly in time, while the method of the present invention exploits the fact that most of the flip-flops in a scan chain share a common clock domain. Because there are multiple ways to partition subgroups, a general reference to partitioning subgroups that does not specifically include all the claimed limitations is not sufficient to support a rejection under 35 U.S.C. § 103, even if the end result is the same. Because the rejection fails to show that the partitioning in *Huang* is performed in the same manner as specifically recited in Claims 1 and 10, the rejection fails to arrive at Claims 1 and 10.

The rejection further alleges that in paragraph [0024], *Huang* teaches the claimed step (e) of inserting the selected cell in the corresponding list of cells for the common signal domain associated with the signal driver. The rejection argues that partitioning scan cells "effectively results in inserting the selected cells". However, as explained above, the same result may be achieved in different ways that do not exploit the fact that most of the flip-flops in a scan chain share a common clock domain. There is no teaching or suggestion in *Huang* that would lead one of ordinary skill in the art to partition the scan cells in the specific manner recited in Claims 1 and 10. Because *Huang* lacks the claimed steps that specifically recite selecting a cell belonging to a common signal domain that is not included in a corresponding list of cells for a common signal domain and inserting the selected cell in the corresponding list of cells for the common signal domain associated with the signal driver, Claims 1 and 10 are not obvious under 35 U.S.C. § 103.

The rejection further argues that one of ordinary skill in the art would have been motivated at the time of the invention to modify *Huang* by the tracing module of *Nadeau* to identify scan cells for selection and insertion into lists. However, *Huang* lacks steps (c) and (e) that specifically recite selecting a cell belonging to a common signal domain that is not included in a corresponding list of cells for a

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common signal domain and inserting the selected cell in the corresponding list of cells for the common signal domain associated with the signal driver. Because *Huang* lacks steps (c) and (e), the proposed modification of *Huang* by *Nadeau* fails to arrive at the claimed invention. Because the proposed modification of *Huang* by *Nadeau* fails to arrive at the claimed invention, Claims 1 and 10 are not obvious under 35 U.S.C. § 103.

The rejection further argues that one of ordinary skill in the art would have been motivated at the time of the invention to modify *Huang* by the tracing module of *Nadeau* to identify scan cells for selection and insertion into lists. However, there is no teaching or suggestion in *Huang* that the claimed lists are necessary to achieve the partitioning described in paragraph [0024]. Absent a reasonable explanation of why the claimed lists would be necessary to achieve the partitioning described in paragraph [0024], there is no motivation to modify *Huang* by the tracing module of *Nadeau* to arrive at the claimed invention. Because there is no motivation to modify *Huang* by the tracing module of *Nadeau* to arrive at the claimed invention, Claims 1 and 10 are not obvious under 35 U.S.C. § 103.

Regarding the rejection of Claims 2 and 11, section 6 of the rejection alleges that *Huang* teaches repeating steps (c), (d), and (e) (now steps (c)-(g)) until every cell belonging to a common signal domain has been inserted in a corresponding list of cells for the common signal domain. However, the rejection bases this allegation on the assumption that the repetition of these steps must occur to create the subgroups in *Huang*. However, as explained above, there are other methods of creating subgroups based on source clock roots that do not require the repetition of the specific steps recited in Claims 2 and 11, and there is no teaching or suggestion in *Huang* that the partitioning of scan cells into subgroups must be performed in the specific manner recited in Claims 2 and 11. Because there is no teaching or suggestion

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in *Huang* that the partitioning of scan cells into subgroups must be performed in the specific manner recited in Claims 2 and 11, Claims 2 and 11 are not obvious under 35 U.S.C. § 103.

The rejection of Claims 3-9 and 12-23 is traversed for the same reasons presented above in defense of Claims 1 and 10.

Claims 4 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Huang*, et al., U.S. Patent Application No. 2004/0015803 (*Huang*) in view of *Nadeau-Dostie* et al., U.S. Patent No. 6,457,161 (*Nadeau*) and further in view of *Yoshimoto*, U.S. Patent No. 6,877,120. Applicant respectfully traverses the rejection of Claims 4 and 13 for the same reasons presented above in defense of Claims 1 and 10.

Applicant submits that this amendment places Claims 1-18 in condition for allowance and respectfully requests their favorable examination and reconsideration.

No additional fee is believed due for this amendment.

Respectfully submitted,  
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